

TRANSPORTATION AUTHORITY OF MARIN HIGHWAY 101 GREENBRAE CORRIDOR IMPROVEMENT PROJECT TASK ORDER 1 -- SCOPE OF SERVICES

I Project Description and Purpose

The Highway 101 Greenbrae Corridor Improvement Project consists of analyzing and recommending multi-modal transportation improvements to reduce traffic congestion within the Highway 101 Greenbrae Corridor in central Marin County and preparing technical reports, including: conceptual engineering drawings to Caltrans/FHWA standards and Project Report(s) and Environmental Document(s) in accordance with California Environmental Quality Act (CEQA) and/or the National Environmental Protection Act (NEPA) requirements.

The corridor limits currently extend from south of the Tamalpais Drive Overcrossing in Corte Madera to just north of the US 580/Highway 101 Interchange in San Rafael. Analysis will also include a multi-use pathway currently envisioned to connect Wornum Drive with the Central Marin Ferry Terminal and the Cal Park Tunnel Multi-Use Pathway. The following interchanges will be included along with various ramps connections to US 101:

- 1. US 101/Tamalpais Dr
- 2. US 101/ Madera Blvd ramps
- 3. US 101/ Lucky Dr and Redwood Hwy ramps
- 4. US 101/ Sir Francis Drake Blvd

- 5. Proposed Hwy 101/Wornum Dr
- 6. US 101/I-580
- 7. I-580/Bellam Blvd
- 8. I-580/Sir Francis Drake Blvd

The purpose of Task Order 1 is to develop consensus within approximately twelve (12) months for improvement packages that can be carried further through the environmental clearance and implementation processes. The following section provides a detailed description of the scope of services included in this task order.

II Scope of Services

General Basis of Estimate

- Review comments from TAM, Technical Advisory Committee (TAC), and Caltrans
 will be submitted to the Consultant, who will then compile and review them for
 conflicts
- TAM will resolve conflicting comments and/or project direction
- Administrative Draft, Draft and Final deliverables will be provided (up to two (2) review cycles)
- Electronic version, preferably PDF format, and up to five (5) hardcopies of each deliverable will be submitted to TAM

EXHIBIT "A", 20 pages



- Team members from each individual technical discipline will coordinate and support environmental analyses, alternatives screening, and consensus-building activities and
- will develop responses to comments received during public/agency meetings as part of individual technical tasks as needed
- All calculations/reports/documents will be independently checked prior to submission and evidence of independent check will be maintained in project files

1. Project Management

Basis of Estimate

- Internal accounting methods and procedures will be used to document and monitor a cost plus fee for a "Maximum Not to Exceed Price" Task Order
- Project Management Plan (PMP) includes task order scope, schedule, quality assurance plan, communications protocol, invoicing procedures, and progress reporting procedures
- Meeting summaries will indicate issues discussed, resolutions identified, further actions needed, and an updated Action Item Log
- Monthly Invoices and Progress Reports will include identification of problem areas and recommendations to rectify the problem(s) and a narrative status for work accomplished in the previous period and work planned for the next period
- Project Manager will identify and report any cause or condition which might, under reasonable foreseeable circumstances, result in delay that may require a time extension or additional work scope.

1.1. Initiation and Planning

Scope of Services

- Conduct kick-off meeting with TAM and project team
- Submit Draft and Final PMP

Deliverables

- Project Management Plan
- Kick-off meeting summary

1.2. Execution and Coordination

Scope of Services

- Submit up to three (3) schedule updates, to reflect changes in project process and schedule of activities
- Prepare and submit up to 12 monthly invoices and progress reports
- Manage scope, schedule and budget



- Provide Quality Assurance oversight
- Maintain project files in Prime Consultant's office
- Cubicle (with Internet Service) at TAM (estimated \$500/month)

Deliverables

- Project schedule updates
- Project invoices and progress reports

1.3. Coordination and Meetings

Scope of Services

- Organize, conduct, and document up to 12 monthly Progress Meetings. Progress Meetings include Consultant Team Leaders and TAM participations and will include discussion of work progress, plans for the next period, potential problems, and other project issues
- Organize, conduct, and document up to two (2) additional Project Coordination Meetings at any time that any party requires discussion of Project issues
- Organize, conduct, and document up to 12 internal monthly Team Leader
 Coordination meetings/calls with Team Leaders and their technical team members

Deliverables

- Agendas and meeting summaries for Progress, Project Coordination, Team Coordination, and TAC meetings
- Quality control documentation

2. Tamalpais Drive Interchange Planning Study

Basis of Estimate

- Existing traffic data will be used
- Meetings related to this task are separate from meetings included in other tasks

Scope of Services

- Summarize Base Year (2005) and Future Year (2035) conditions using existing information and the Corte Madera General Plan EIR (Fehr & Peers). Analysis include reviewing existing and forecast traffic volumes, traffic operations, safety issues, transit conditions, and pedestrian and bicycle conditions.
- Develop and evaluate up to three (3) distinct options to improve transportation mobility for the interchange area (using quantitative traffic level-of-service and qualitative multi-modal enhancements).
- Organize, conduct, and document up to four (4) project team meetings
- Organize, conduct, and up to two (2) agency meetings



Deliverables

 Hwy 101/Tamalpais Drive Interchange Planning Study Memo (includes improvement strategies, existing and future base year transportation conditions, and evaluation summary with graphics, as appropriate)

3. Consensus Building and Outreach

3.1. Project Development Workshops

Basis of Estimate

- Up to three (3) public workshops and one (1) final public presentation at TAM Board meeting
- Technical Advisory Committee (TAC) Meetings will be held approximately two weeks prior to workshops
- Workshop summaries will include an overview of the workshop, documentation of issues/comments, and a list of any action items/next steps
- Includes printing of meeting materials, including up to 30 exhibit boards
- Includes printing/distribution of notification materials and display advertisement placements (Marin IJ, Twin Cities Times, Commuter Times)
- Use of a court reporter at workshops is not included

Scope of Services

- Plan and organize each workshop
- Research and identify appropriate locations to host the workshops for approximately 150 to 200 attendees
- Prepare and distribute notification materials (letters, notices, newspaper advertisements) to the community and key stakeholders
- Develop and finalize information hand outs and presentation materials for each workshop (e.g fact sheet, PowerPoint presentation, exhibit boards)
- Organize, conduct, facilitate, and document workshops and meeting proceedings including comments from participants

Deliverables

- Notification materials (workshop announcements, display ads, press releases, elected officials letters, web site announcements)
- Meeting agendas / PowerPoint presentations / project informational materials / exhibit boards
- Workshop and meeting summaries



3.2. Stakeholder Interviews / Briefings / Communications Planning

Basis of Estimate:

- TAM will review and approve proposed agency and key stakeholder list and interview questions
- Communications protocol and Work Plan will not to exceed 10 pages

Scope of Services

- Develop communications protocol and Work Plan
- Prepare and maintain key stakeholders list and identify initial interviews/briefings
- Develop a series of interview questions
- Organize, conduct and document up to 15 stakeholder interviews
- Organize, conduct and document up to 10 presentations/briefings with commissions, other local agencies, community groups, and other agencies
- Prepare master PowerPoint Briefing and update quarterly
- Participate in ongoing team coordination meetings to plan communications strategies and activities

Deliverables:

- Communications Protocol and Work Plan
- Stakeholder contact list, interview guidelines and summaries
- Master PowerPoint Briefing and updates

3.3. Agency Coordination

Basis of Estimate

- TAM will review and approve proposed agency and key stakeholder list
- Location to be determined with TAM and for the convenience of agency members

Scope of Services

- Establish agency coordination plan
- Identify and maintain agency representative and key stakeholder list for ongoing coordination and discussion of issues
- Organize, conduct, and document up to four (4) TAC meetings
- Organize, conduct, and document up to four (4) additional agency meetings

Deliverables

- Agency and key stakeholder contact list
- Information and presentation materials for agency meetings
- Meeting agendas and summaries with action item lists



3.4. Database Development and Comment Tracking

Basis of Estimate

- TAM, County of Marin, Corte Madera and Larkspur will provide existing contact information in electronic format
- TAM will approve/revise proposed database contacts
- Database will catalogue and track comments, issues, and resolutions originally identified by key stakeholders including community members, property owners, business interests, local organizations, interested agencies and elected

Scope of Services

- Supplement existing contact information utilizing Parcel Quest to identify adjacent property owners and neighbors
- Conduct research to identify additional stakeholders and interested parties
- Develop protocol for tracking comments received
- Develop and maintain database for up to 3,500 contacts for 12 months
- Provide up to four (4) Comment Tracking Reports outlining categories of issues and disposition

Deliverables

- Outline of database information for review by team and TAM
- Database with contact information and issues/comments noted
- Comment Tracking Reports

3.5. Combined Newsletter/Facts Sheets

Basis of Estimate

- Publish materials using TAM's standard format for publications
- Up to 3,500 Combined Newsletters/Fact Sheets per issue
- Combined Newsletters/Fact Sheets will be made available at workshops and distributed to people in the project mailing list
- Mailing costs included

Scope of Services

- Develop outlines and appropriate topics for each newsletter/fact sheet
- Provide up to three (3) combined newsletters/fact sheets (11 x 17 folded in 3-color) (kickoff, update, and conclusion of consensus building) to keep interested parties updated on project development and available information on the project development process

Deliverables

Newsletters/ Fact Sheets

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3.6. Website Coordination

Basis of Estimate:

- CirclePoint to place project materials on the TAM website upon approval by TAM
- All materials to be approved by TAM staff before placement on website

Scope

- Prepare a project-specific web page to link to TAM website to post project materials and notifications of upcoming activities and meetings
- Prepare text to keep project page up-to-date on monthly basis
- Provide electronic copies of project materials formatted for posting to the TAM website
- Coordinate with TAM to update project website on a regular basis
- Coordinate placement of other related data on the TAM website

Deliverables

- Project webpage
- Webpage updates
- Record of items posted to website

3.7. Media Coordination

Basis of Estimate:

Coordinate with TAM staff to identify existing contacts and media releases

Scope of Services

- Identify appropriate contacts for newspapers, radio stations, and television stations.
- Establish and maintain media contact list contacts to publish project information and announcements.
- Produce and distribute press kits including press releases and project information as appropriate
- Track articles on project and maintain media coverage file on project

Deliverables

- Newspaper articles for local papers (e.g citywide mailers)
- Media releases and display advertisements

4. <u>Transportation Studies</u>

4.1. Existing Issues/Problems

Basis of Estimate

- Relevant transportation reports/studies/policies provided by TAM
- Existing transportation data provided by TAM



 Up to \$50,000 for comprehensive transportation data collection program cost to obtain freeway ramp entry and exit surveys based on the number of freeway ramps, origin-destination data, GPS corridor travel time surveys, lane utilization observations, and vehicle occupancy estimates

Scope of Services

- Review prior reports/studies/policies and summarize existing transportation data
- Identify and collect traffic data limited by defined budget
 - GPS travel time surveys for forecasting model validation/calibration
 - Lane utilization observations
 - Vehicle occupancy estimates for HOV and mixed flow lanes
 - Origin-destination surveys
 - Freeway ramp entry and exit surveys via video-capture of vehicle license plates for AM and PM peak hour for up to five (5) interchanges
- Conduct safety assessment / collision history analysis to identify the location, type, and severity, of recent collisions on Highway 101 and at interchange ramps for years 2001 through 2005
- Develop technical memorandum to define existing issues and problematic experiences and identify opportunities and constraints to improving corridor access in the Greenbrae corridor. Document AM and PM peak hour freeway mainline volume to capacity ratios and local intersection Level of Service (LOS) at up to 20 intersections. The Bon Road/Sir Francis Drake Blvd intersection will be included.
- Map existing conditions using Geographic Information System (GIS) for use at public and agency coordination meetings, including: bicycle usage, vehicle origindestination patterns, freeway and local street peak hour and ADT traffic volumes, bus and ferry routes and ridership, automobile collision history, etc
- Develop draft evaluation criteria for use in alternatives analysis

Deliverables

- Catalog of relevant transportation reports/studies/policies memorandum
- Data collection needs memorandum
- Data collection summary
- Collision analysis memorandum and comparison to non-standard geometric features
- Existing conditions memorandum
- Existing conditions maps in GIS or other graphical format
- Multimodal transportation evaluation criteria memorandum
- 4.2. Develop 2005 and 2035 Baseline (No Build) Conditions

Basis of Estimate

 Review of Marin County Travel Model to be coordinated with TAM and County of Marin staff

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- TAM and/or Marin County staff will develop and provide a future year (2035) Marin County Travel Model using EMME/2
- Beyond testing and correcting roadway link attributes, no additional adjustments or calibration of the Marin County Travel Model is included

Scope of Services

- Review and refine the project area of the Marin County Travel Demand Model for both preliminary alternatives screening and the PAED phase
 - Network refinements will consist of updates to the number of travel lanes, free flow speeds, and link distances in the focused study area
 - Comparison of existing model AM and PM peak hour roadway volumes to
 existing traffic counts at the study area boundaries will also be performed to
 validate the model and obtain Caltrans and MTC approval as the platform for
 developing a refined subarea model for the project study area
- Develop Base Year (2005) VISUM model by expanding the subarea VISUM model for the Corte Madera General Plan EIR transportation analysis to include AM peak hour conditions and greater geographic area that includes the I-580/US-101 Interchange, the Bellam/I-580 Interchange, and Sir Francis Drake Boulevard east to I-580
- Conduct additional data collection for model calibration/validation that may include average travel speeds on local streets, traffic signal phasing data, and peak hour intersection turning movement counts
- Validate/Calibrate Base Year (2005) model and document in a technical memorandum to the Project Team, TAM, Caltrans, and MTC
- Develop Future Year (2035) "No Project" model
 - Use origin-destination (O-D) trip tables from the Marin County Travel Demand Model to determine the projected traffic volume
 - Use as baseline upon which to compare alternatives in PAED phase and to future year intersection turning movements to qualitatively determine capacityconstrained intersections
- Develop traffic forecasting memorandum to document development of Base Year and Future Year VISUM models for approval of cumulative forecasts
- Develop existing alternative modes usage/assessment to determine "baseline" usage, including: transit, bicyclists, and pedestrians and access to Larkspur Ferry Terminal, freeway interchange bus pads, local commercial destinations, and area schools
 - Usage estimates from recent studies may include: recent peak hour bicycle and pedestrian counts in Larkspur; bus ridership statistics from the Marin County Transit District (MCTD) and Golden Gate Transit; Marin County Safe Routes to School Program surveys; Marin County Journey to Work (JTW) statistics from the 2000 Census; and surveys conducted as part of the Larkspur Ferry Terminal Access Improvement Study and Central Marin Ferry Connection Project
 - Alternative modes data will be compiled to develop baseline estimates of alternative modes usage in the corridor

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- Results will be mapped in GIS or other graphical format for presentation at public workshops
- Develop future Year (2035) "No Project" alternative modes usage / assessment using the Base Year alternative modes usage and planned improvements in the corridor that may affect multimodal travel patterns, including: service changes anticipated as part of the recently-approved Marin County Transit Short Range Transit Plan, planned bicycle and pedestrian improvements in the corridor, and changes in school enrollment at local schools
- Develop, Validate and Calibrate Base Year (2005) and Future Year (2035) VISSIM microsimulation model with AM and PM peak hour freeway mainline, weaving, on-ramp merge, and off-ramp diverge operations results to identify and define existing operations constraints on the freeway corridor from the Tamalpais Interchange to the Sir Francis Drake interchange. Key components unique to an integrated VISUM/VISSIM model include:
 - Conversion from VISUM to detailed traffic operations analysis and 3D simulation capabilities
 - Multi-model system-wide analysis includes all modes of transportation, including the ability to evaluate ramp metering, transit operations and travel time based assignment of traffic
 - Path-based routing of SOV, HOV, Transit, and truck volumes accurately reflecting lane utilization, merging, and weaving analyses
 - Allows for different driver behavior by link type (i.e., freeway, ramp, and non-freeway) recognizing that drivers have different behaviors depending on the type of facility
 - Realistic 3-dimensional output that can be used to illustrate simulation results to the public and decision-makers
- Document the development of a validated and calibrated VISSIM model, including a matrix of key operational measures, and provide to the project team and TAC for review and comment

Deliverables

- Network refinements and results of Marin County Travel Model
- Existing base year (2005) VISUM Model results and validation memorandum
- Future base year (2035) VISUM Model traffic forecasting memorandum
- Existing and future alternative modes usage/assessment memorandum
- Existing and future base years (2005 and 2035) VISSIM transportation operations memorandum

4.3. Alternatives Development and Screening

Basis of Estimate

■ Impacts to alternative modes may include qualitative and quantitative measures, such as changes in bus travel time, closure of gaps in the bicycle network, and improvements to pedestrian connectivity in the project area